	E	Exploring the Ex	treme
	2009 \$	Science Revised	
		Learning Stand	ards
Washington Science	Revised June 20	10	
Grades K-1			
Activity/Lesson	State	Standards	
Finding the Center of		SCI.K-1.2.K-1	Report observations of simple investigations,
Gravity Using Rulers		INQD.1	using drawings and simple sentences.
Cravity Comig Maioro	***	1100.1	Use common terms so that all observers can
			agree on the position of an object in relation
			to another object (e.g., describe whether the
			teacher's desk is in front of the room, at the
			side, or in the back; say whether the top of
Finding the Center of		SCI.K-1.4.K-1	the school's flagpole is higher or lower than
Gravity Using Rulers	WA	PS1A.1	the roof).
			Demonstrate motion by moving an object or
Finding the Center of		SCI.K-1.4.K-1	a part of a student's body and explain that
Gravity Using Rulers	WA	PS1B.1	motion means a change in position.
		Exploring the Ex Science Revised	
	2009 3	Learning Stand	
Washington Science	Revised June 20		
Grades 2-3	Revised buile 20		
Activity/Lesson	State	Standards	
			Work with other students to make and follow
			a plan to carry out a scientific investigation.
			Actions may include accurately observing
			and describing objects, events, and
Finding the Center of		SCI.2-3.2.2-3	organisms; measuring and recording data;
Gravity Using Rulers	WA	INQB.1	and predicting outcomes.
		0010000	
Finding the Center of		SCI.2-3.2.2-3	Distinguish between direct observations and
Gravity Using Rulers	VVA	INQC.1	simple inferences.
Finding the Center of		SCI.2-3.2.2-3	Use a simple model to study a system. Explain how the model can be used to
Gravity Using Rulers		INQE.1	understand the system.
Clavity Coing Nuicis	V V / 1	11 VQL. 1	Communicate honestly about their
Finding the Center of		SCI.2-3.2.2-3	investigations, describing how observations
Gravity Using Rulers		INQG.1	were made and summarizing results.
, , , , , , , , , , , , , , , , , , ,			Give an example to illustrate motion as a
			change in position over a period of time
			(e.g., if a student stands near the door and
Finding the Center of		SCI.2-3.4.2-3	then moves to his/her seat, the student is "in
Gravity Using Rulers	WA	PS1A.1	motion" during that time).
			Identify the force that starts something
			moving or changes its speed or direction of
Finding the Center of		SCI.2-3.4.2-3	motion (e.g., when a ball is thrown or when a
Gravity Using Rulers	WA	PS1B.1	rock is dropped).

			Work with other students to make and follow
			a plan to carry out a scientific investigation.
			Actions may include accurately observing
Finding the Center of			and describing objects, events, and
Gravity Using Plumb		SCI.2-3.2.2-3	organisms; measuring and recording data;
Lines	WA	INQB.1	and predicting outcomes.
Lines	VV/\	IIIQD.1	Use simple instruments (e.g., metric scales
			or balances, thermometers, and rulers) to
Finding the Center of			observe and make measurements, and
Gravity Using Plumb		SCI.2-3.2.2-3	· · · · · · · · · · · · · · · · · · ·
, ,	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	INQD.1	record and display data in a table, bar graph,
Lines	WA	INQD.1	line plot, or pictograph.
Finding the Center of		0010000	Use a simple model to study a system.
Gravity Using Plumb	1.4.4	SCI.2-3.2.2-3	Explain how the model can be used to
Lines	WA	INQE.1	understand the system.
Finding the Center of		0010000	Communicate honestly about their
Gravity Using Plumb		SCI.2-3.2.2-3	investigations, describing how observations
Lines	WA	INQG.1	were made and summarizing results.
			Give an example to illustrate motion as a
			change in position over a period of time
Finding the Center of			(e.g., if a student stands near the door and
Gravity Using Plumb		SCI.2-3.4.2-3	then moves to his/her seat, the student is "in
Lines	WA	PS1A.1	motion" during that time).
			Identify the force that starts something
Finding the Center of			moving or changes its speed or direction of
Gravity Using Plumb		SCI.2-3.4.2-3	motion (e.g., when a ball is thrown or when a
Lines	WA	PS1B.1	rock is dropped).
			,
			Work with other students to make and follow
			a plan to carry out a scientific investigation.
			Actions may include accurately observing
Changing the Center			and describing objects, events, and
of Gravity Using		SCI.2-3.2.2-3	organisms; measuring and recording data;
Moment Arms	WA	INQB.1	and predicting outcomes.
Changing the Center	-	1	
of Gravity Using		SCI.2-3.2.2-3	Distinguish between direct observations and
Moment Arms	WA	INQC.1	simple inferences.
			Use simple instruments (e.g., metric scales
			or balances, thermometers, and rulers) to
Changing the Center			observe and make measurements, and
		SCI.2-3.2.2-3	record and display data in a table, bar graph,
of Gravity Using Moment Arms	\\\\		
	WA	INQD.1	line plot, or pictograph.
Changing the Center		60100000	Communicate honestly about their
of Gravity Using	110/0	SCI.2-3.2.2-3	investigations, describing how observations
Moment Arms	WA	INQG.1	were made and summarizing results.
			Give an example to illustrate motion as a
<u></u>			change in position over a period of time
Changing the Center			(e.g., if a student stands near the door and
of Gravity Using		SCI.2-3.4.2-3	then moves to his/her seat, the student is "in
Moment Arms	WA	PS1A.1	motion" during that time).

Changing the Center of Gravity Using		SCI.2-3.4.2-3	Identify the force that starts something moving or changes its speed or direction of motion (e.g., when a ball is thrown or when a
Moment Arms	WA	PS1B.1	rock is dropped).
		Exploring the Ex	
	2009 \$	Science Revised	
	D : 11 00	Learning Stand	dards
Washington Science Grades 4-5	e Revisea June 20	10	
	Ctoto	Ctondondo	
Activity/Lesson	State	Standards	Identify the questions being asked in an
Finding the Center of		SCI.4-5.2.4-5	investigation. Gather scientific evidence that
Gravity Using Rulers		INQA.1	helps to answer a question.
, , , , , , , , , , , , , , , , , , ,			Given a research question, plan an
Finding the Center of Gravity Using Rulers		SCI.4-5.2.4-5 INQB.1	appropriate investigation, which may include systematic observations, field studies, models, open-ended explorations, or controlled experiments.
		00145045	Constant simple mandal to account on
Finding the Center of		SCI.4-5.2.4-5	Create a simple model to represent an
Gravity Using Rulers	WA	INQF.1	event, system, or process.
Finding the Center of		SCI.4-5.2.4-5	Use the model to learn something about the
Gravity Using Rulers		INQF.2	event, system, or process.
Cravity Comig Traioro	VV/ (11101.2	Communicate to peers the purpose,
Finding the Center of		SCI.4-5.2.4-5	procedure, results, and conclusions of an
Gravity Using Rulers		INQH.2	investigation.
Finding the Center of Gravity Using Rulers Finding the Center of	WA	SCI.4-5.3.4-5 APPF.1	Communicate the solution, results of any tests, and modifications persuasively, using oral, written, and/or pictorial representations of the process and product. Communicate to peers the purpose,
Gravity Using Plumb		SCI.4-5.2.4-5	procedure, results, and conclusions of an
Lines	WA	INQH.2	investigation.
Finding the Center of Gravity Using Plumb Lines Changing the Center		SCI.4-5.3.4-5 APPF.1	Communicate the solution, results of any tests, and modifications persuasively, using oral, written, and/or pictorial representations of the process and product. Identify the questions being asked in an
of Gravity Using		SCI.4-5.2.4-5	investigation. Gather scientific evidence that
Moment Arms	WA	INQA.1	helps to answer a question.
Changing the Center	V V /\	iivQ/\.i	Communicate to peers the purpose,
of Gravity Using		SCI.4-5.2.4-5	procedure, results, and conclusions of an
Moment Arms	WA	INQH.2	investigation.
Changing the Center			Communicate the solution, results of any tests, and modifications persuasively, using
of Gravity Using		SCI.4-5.3.4-5	oral, written, and/or pictorial representations
Moment Arms	WA	APPF.1	of the process and product.

Jet Propulsion	WA	SCI.4-5.2.4-5 INQD.1	Gather, record, and organize data using appropriate units, tables, graphs, or maps.	
occi ropuloion		SCI.4-5.2.4-5	Create a simple model to represent an	
Jet Propulsion	WA	INQF.1	event, system, or process.	
		SCI.4-5.2.4-5	Use the model to learn something about the	
Jet Propulsion	WA	INQF.2	event, system, or process.	
			Communicate to peers the purpose,	
		SCI.4-5.2.4-5	procedure, results, and conclusions of an	
Jet Propulsion	WA	INQH.2	investigation.	
•			Use suitable tools, techniques, and materials	
		SCI.4-5.3.4-5	to make a drawing or build a model or	
Jet Propulsion	WA	APPE.1	prototype of the proposed design.	
		SCI.4-5.2.4-5	Gather, record, and organize data using	
Vectoring	WA	INQD.1	appropriate units, tables, graphs, or maps.	
		SCI.4-5.2.4-5	Create a simple model to represent an	
Vectoring	WA	INQF.1	event, system, or process.	
		SCI.4-5.2.4-5	Use the model to learn something about the	
Vectoring	WA	INQF.2	event, system, or process.	
			Display the findings of an investigation using	
		001 4 5 0 4 5	tables, graphs, or other visual means to	
Ma atawia a	14/4	SCI.4-5.2.4-5	represent the data accurately and	
Vectoring	WA	INQH.1	meaningfully.	
			Communicate the solution, results of any	
			tests, and modifications persuasively, using	
	WA	SCI.4-5.3.4-5	oral, written, and/or pictorial representations	
Vectoring		APPF.1	of the process and product.	
Veolering		7411.1	Measure the distance that an object travels	
			in a given interval of time and compare it with	
			the distance that another object moved in the	
		SCI.4-5.4.4-5	same interval of time to determine which is	
Vectoring	WA	PS1B.1	fastest.	
<u> </u>			Given a research question, plan an	
			appropriate investigation, which may include	
			systematic observations, field studies,	
Center of Gravity,		SCI.4-5.2.4-5	models, open-ended explorations, or	
Pitch, Yaw	WA	INQB.1	controlled experiments.	
Center of Gravity,		SCI.4-5.2.4-5	Create a simple model to represent an	
Pitch, Yaw	WA	INQF.1	event, system, or process.	
Center of Gravity,	ļ.,,	SCI.4-5.2.4-5	Use the model to learn something about the	
Pitch, Yaw	WA	INQF.2	event, system, or process.	
Onether of Oct. 11		00145045	Use suitable tools, techniques, and materials	
Center of Gravity,	10/0	SCI.4-5.3.4-5	to make a drawing or build a model or	
Pitch, Yaw	WA	APPE.1	prototype of the proposed design.	
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Exploring the Extreme				
2009 Science Revised June 2010 Learning Standards				
Washington Science Revised June 2010				
	1011000 001			
Grades 6-8				

Jet Propulsion Jet Propulsion	WA	SCI.6-8.2.6-8 INQC.1 SCI.6-8.2.6-8 INQD.1	Communicate results using pictures, tables, charts, diagrams, graphic displays, and text that are clear, accurate, and informative. Plan and conduct a controlled experiment to test a hypothesis about a relationship between two variables. Determine which variables should be kept the same (controlled), which (independent) variable should be systematically manipulated, and which responding (dependent) variable is to be measured and recorded. Report any variables not controlled and explain how they might affect results.
Jet Propulsion	WA	SCI.6-8.2.6-8 INQE.1	Create a model or simulation to represent the behavior of objects, events, systems, or processes. Use the model to explore the relationship between two variables and point out how the model or simulation is similar to or different from the actual phenomenon.
Jet Propulsion	WA	SCI.6-8.2.6-8 INQG.1	Prepare a written report of an investigation by clearly describing the question being investigated, what was done, and an objective summary of results. The report should provide evidence to accept or reject the hypothesis, explain the relationship between two or more variables, and identify limitations of the investigation.
Center of Gravity, Pitch, Yaw	WA	SCI.6-8.2.6-8 INQB.1	Plan and conduct a scientific investigation (e.g., field study, systematic observation, controlled experiment, model, or simulation) that is appropriate for the question being asked.
Center of Gravity, Pitch, Yaw	WA	SCI.6-8.2.6-8 INQE.1	Create a model or simulation to represent the behavior of objects, events, systems, or processes. Use the model to explore the relationship between two variables and point out how the model or simulation is similar to or different from the actual phenomenon.
Fuel Efficiency	WA	SCI.6-8.2.6-8 INQC.1	Communicate results using pictures, tables, charts, diagrams, graphic displays, and text that are clear, accurate, and informative. Use statistical procedures (e.g., median,
Fuel Efficiency	WA	SCI.6-8.2.6-8 INQC.3	mean, or mode) to analyze data and make inferences about relationships.